

Amdt. dated May 30, 2006
Reply to Office action of February 27, 2006

Serial No. 10/786,845
Docket No. TUC920030107US1
Firm No. 0022.0053

REMARKS/ARGUMENTS

Claims 1-41 are pending in the application. Claims 1, 3, 10, 12, 16, 18, 25, 27, 31, 33, 36, and 38 have been amended. Reconsideration is respectfully requested. Applicants submit that the pending claims 1-41 are patentable over the art of record and allowance is respectfully requested of claims 1-41.

Applicants would like to thank Examiner Song for holding a telephone interview with their representative, Janaki K. Davda, on May 30, 2006, at 2:30 p.m. (EST). Applicants' representative and Examiner Song discussed proposed claim amendments to claims 1, 10, 12, and 16. Applicants' representative described that a backup component, such as those in FIG. 1A, are responsible for transferring data updates for a certain portion of data from one or more primary sources to one or more secondary sources, and, when a data update for the portion of data is received at the first backup component from a primary source, that first backup component mirrors the data update to a second backup component that is not assigned responsibility for the portion of data. Applicants' representative also described the mirroring with reference to each backup component having the ability to communicate with each other backup component over a communication path. No agreement was reached.

Applicants would like to thank Examiner Song for indicating that claims 3, 18, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have amended claims 3, 18, and 33 to place them in condition for allowance.

Claims 16-30 were rejected under 35 U.S.C. 101 as not being limited to tangible embodiments. Applicants respectfully traverse, but, in order to expedite prosecution, Applicants' have amended claims 16, 25, and 27 to describe an article of manufacture comprising one of hardware logic and a computer readable medium including code for processing data updates with a group of backup components, wherein the logic or code causes operations to be performed (e.g., Specification, page 21, paragraph 63). In particular, paragraph 63 of the Specification describes that the "term 'article of manufacture' as used herein refers to code or logic

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implemented in hardware logic (e.g., an integrated circuit chip, Programmable Gate Array (PGA), Application Specific Integrated Circuit (ASIC), etc.) or a computer readable medium, such as magnetic storage medium (e.g., hard disk drives, floppy disks,, tape, etc.), optical storage (CD-ROMs, optical disks, etc.), volatile and non-volatile memory devices (c.g., EEPROMs, ROMs, PROMs, RAMs, DRAMs, SRAMs, firmware, programmable logic, etc.)." Applicants respectfully submit that amended claims 16-30 are limited to tangible embodiments.

Claims 1-2, 4-17, 19-32, and 34-41 were rejected under 35 U.S.C. 102(e) as being anticipated by St. Pierre et al. (U.S. Patent No. 6,959,368). Applicants respectfully traverse.

Anticipation requires that the identical invention must be shown in a single reference in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The St. Pierre patent describes logical duplication of backup data to a computer-readable duplicate backup storage medium (Abstract).

Claim 1 describes assigning responsibility for a portion of data to a first backup component and when a data update for the portion of data is received at the first backup component from a primary source, mirroring the data update to a second backup component that is not assigned responsibility for the portion of data. Each backup component is responsible for transferring data updates for a certain portion of data from one or more primary sources to one or more secondary sources, and each backup component has the ability to communicate with each other backup component over a communication path (e.g., Specification, page 9, paragraph 24 and page 10, paragraph 26; FIGs. 1A, 1B, 1C, 1D).

The Office Action cites a first and second computer-readable backup storage medium as a first and second backup component. Applicants traverse. Each backup component is responsible for transferring data updates for a certain portion of data from one or more primary sources to one or more secondary sources, and each backup component has the ability to communicate with each other backup component over a communication path, which is not anticipated by the computer-readable backup storage mediums that merely store data.

Thus, claim 1 is not anticipated by the St. Pierre patent.

Claims 16 and 31 are not anticipated by the St. Pierre patent for at least the same reasons as were discussed with respect to claim 1.

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Claim 10 describes determining that a new backup component is active. Near an end of a consistent transactions set formation period, responsibility for transferring data updates from one or more primary sources to one or more secondary sources for one or more portions of data is assigned to each backup component in the group and to the new backup component (e.g., Specification, page 9, paragraph 24; page 18, paragraph 53; FIG. 5). During a next consistent transactions set formation period, data updates to be transferred are processed with each backup component in the group and the new backup component.

The St. Pierre patent describes a backup trail and performing incremental backup (Col. 14, lines 11-14 and 29-31), which does not anticipate the subject matter of claim 10. The St. Pierre patent describes that specified backup storage media are collectively referred to as a backup trail (Col. 2, lines 3-4). For example, the storage media of the backup trail merely store data, and these storage media are not assigned responsibility *for transferring data updates* from one or more primary sources to one or more secondary sources for one or more portions of data to each backup component in the group and to the new backup component. Also, the storage media do not process data updates by transferring and mirroring the data updates.

Thus, claim 10 is not anticipated by the St. Pierre patent.

Claims 25 and 36 are not anticipated for at least the same reasons as were discussed with respect to claims 10.

Claim 12 describes determining that a first backup component in the group is no longer available and reassigning portions of data for which the first backup component had been assigned responsibility for transferring data updates from one or more primary sources to one or more secondary sources to each of the other backup components in the group (e.g., Specification, page 9, paragraph 24; page 18, paragraph 54; FIG. 6A).

The St. Pierre patent describes that work items that are incrementally backed up to a backup trail periodically can be duplicated using logical duplication for which multiple incremental backups may be consolidated onto a single backup storage medium (Col. 14, lines 29-32), which does not anticipate the subject matter of claim 12. Such logical duplication does not anticipate *reassigning* portions of data for which the first backup component had been *assigned responsibility for transferring data updates* from one or more primary sources to one or

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more secondary sources to each of the other backup components in the group. Instead, logical duplication merely duplicates incremental backups on a single backup storage medium.

Claims 27 and 38 are not anticipated for at least the same reasons as were discussed with respect to claims 12.

Dependent claims 2, 4-9, 11, 13-15, 17, 19-24, 26, 28-30, 32, 34-35, 37, and 39-41 incorporate the language of one of independent claims 1, 10, 12, 16, 25, 27, 31, 36, and 38 and add additional novel elements. Therefore, dependent claims 2, 4-9, 11, 13-15, 17, 19-24, 26, 28-30, 32, 34-35, 37, and 39-41 are not anticipated by the St. Pierre patent for at least the same reasons as were discussed with respect to claims 1, 10, 12, 16, 25, 27, 31, 36, and 38.

Conclusion

For all the above reasons, Applicants submit that the pending claims 1-41 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0449.

The attorney of record invites the Examiner to contact her at (310) 553-7973 if the Examiner believes such contact would advance the prosecution of the case.

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